

AMENDMENTS TO THE CLAIMS

Please cancel Claims 2, 4, 8 and 15; amend Claims 1, 5, 6, 9 and 14; and add new Claims 16-21 as follows.

LISTING OF CLAIMS

1. (currently amended) An automotive electric heater apparatus comprising an electric heater for generating heat with power supplied from a high voltage power supply of ~~200 V to 400 V~~ DC, and a thermal fuse including a temperature detecting element connected in series to the electric heater through lead wires, the temperature detecting element fusing and turning off the power circuit of the electric heater when the electric heater is abnormally overheated, wherein

the thermal fuse includes a casing accommodating the temperature detecting element and the lead wires therein and mounted on ~~[[the]]~~ a body surface of the electric heater, and the interior of the casing is filled up with a material being higher in heat conductivity than air~~[[.]]~~;

the casing of the thermal fuse is arranged in such a manner that the longitudinal direction of the temperature detecting element coincides with the longitudinal direction of the electric heater, and one of the lead wires connected to an end of the temperature detecting element is bent in the shape of U in the casing on a plane generally parallel to the body surface of the electric heater and led out in the same direction as the other lead wire connected to the other end of the temperature detecting element; and

the casing is mounted in surface-to-surface contact with the body of the electric heater.

2. (cancelled)

3. (original) An automotive electric heater apparatus according to claim 1, wherein said material having a higher heat conductivity than air contains ceramic or cement as a main component.

4. (cancelled)

5. (currently amended) An automotive electric heater apparatus according to claim ~~[[4]]~~ 1, wherein the casing of the thermal fuse is fixed on the body of the electric heater through a bracket.

6. (currently amended) An automotive electric heater apparatus comprising an electric heater for generating heat with power supplied from a high voltage power supply of ~~DC 200 to 400 V~~, and a thermal fuse including a temperature detecting element connected in series to the electric heater through lead wires, the temperature detecting element fusing and turning off the power circuit of the electric heater when the electric heater is abnormally overheated, wherein

the thermal fuse includes a casing accommodating the temperature detecting element and the lead wires therein and mounted on ~~[[the]]~~ a body surface of the electric heater, the casing is arranged in such a manner that the longitudinal

direction of the temperature detecting element coincides with the longitudinal direction of the electric heater, and one of the lead wires connected to an end of the temperature detecting element is bent in the shape of U in the casing on a plane generally parallel to the body surface of the electric heater and led out in the same direction as the other lead wire connected to the other end of the temperature detecting element[.]; and the casing is mounted in surface-to-surface contact with the body of the electric heater.

7. (original) An automotive electric heater apparatus according to claim 6, wherein said material higher in heat conductivity than air contains ceramic or cement as a main component.

8. (cancelled)

9. (currently amended) An automotive electric heater apparatus according to claim [[8]] 6, wherein the casing of the thermal fuse is fixed on the body of the electric heater through a bracket.

10. (previously presented) An automotive electric heater apparatus according to claim 1, wherein the temperature detecting element is encased in an insulating container.

11. (previously presented) An automotive electric heater apparatus according to claim 10, wherein the insulated container and the lead wires are fixed in place by the material being higher in heat conductivity than the air.

12. (previously presented) An automotive electric heater apparatus according to claim 1, wherein the lead wires are fixed in place by the material being higher in heat conductivity than the air.

13. (previously presented) An automotive electric heater apparatus according to claim 1, wherein the material being higher in heat conductivity is disposed between the temperature detecting element and the electric heater.

14. (currently amended) An automotive electric heater apparatus comprising:
an electric heater;
a thermal fuse including a temperature detecting element and a casing accommodating the temperature detecting element and lead wires connecting the temperature detecting element in series with the electric heater; and
a material being higher in heat conductivity than air disposed between the temperature detecting element and the electric heater[.]; wherein
the material is disposed between the lead wires and the electric heater;
and
one of the lead wires is bent in the shape of a U in the casing on a plane generally parallel to a body surface of the electric heater.

15. (cancelled)

16. (new) An automotive electric heater apparatus according to claim 1, wherein the electric heater includes a sheathed heater and a hot water pipe, the sheathed heater being arranged adjacent to one of two straight portions of a U-shaped lead wire and the hot water pipe being arranged adjacent to the other of the two straight portions of the U-shaped lead wire, and the temperature detecting element is arranged at a straight portion of the hot water pipe side.

17. (new) An automotive electric heater apparatus according to claim 6, wherein the electric heater includes a sheathed heater and a hot water pipe, the sheathed heater being arranged adjacent to one of two straight portions of a U-shaped lead wire and the hot water pipe being arranged adjacent to the other of the two straight portions of the U-shaped lead wire, and the temperature detecting element is arranged at a straight portion of the hot water pipe side.

18. (new) An automotive electric heater apparatus according to claim 14, wherein the electric heater includes a sheathed heater and a hot water pipe, the sheathed heater being arranged adjacent to one of two straight portions of a U-shaped lead wire and the hot water pipe being arranged adjacent to the other of the two straight portions of the U-shaped lead wire, and the temperature detecting element is arranged at a straight portion of the hot water pipe side.

19. (new) An automotive electric heater apparatus according to claim 1, wherein the electric heater includes a sheathed heater and a hot water pipe, both of the sheathed heater and the hot water pipe being embedded in an aluminum body.

20. (new) An automotive electric heater apparatus according to claim 6, wherein the electric heater includes a sheathed heater and a hot water pipe, both of the sheathed heater and the hot water pipe being embedded in an aluminum body.

21. (new) An automotive electric heater apparatus according to claim 14, wherein the electric heater includes a sheathed heater and a hot water pipe, both of the sheathed heater and the hot water pipe being embedded in an aluminum body.